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Always Late: Measures and Determinants of Disbursement Delays at the African Development Bank

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AFRICAN DEVELOPMENT BANK GROUP

Always Late: Measures and Determinants of Disbursement Delays at the African Development Bank

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Abstract

Over the years, an abundant number of studies have pointed to long delays at project start-up as one of the main impediments to the performance of development operations in Africa. The influence and importance of time delays on project performance emphasizes the need for a systematic effort to understand why some projects delay so much and others do not. This study attempts to identify the projects' characteristics which affect the probability to experience delays. Using a sample of African Development Bank Projects, statistical and econometric analyses are employed to identify the determinants of long delays in project start-up in the agricultural sector. The dataset used, consists of all the 525 agricultural sector operations approved by the Bank between 1990 and 2007.

Analyses generally reveal that long gestation and delays at project start-up is prominent for agricultural sector projects and is a potential bottleneck for the Bank funded operations. Time delays have significantly improved for newly approved operations. Close to half of the time delay to the first disbursement is due to the delay between commitment and loan effectiveness. Multinational projects are significantly more efficient in term of delays at start-up. The smaller the cost of the operation, the greater will be the probability to experience long start-up delays. The longer the planned implementation period of a project, the higher the start-up delay will be. Projects with many components have lower probability of experiencing delays at start up. After a project has entered into force, the time elapsed to first disbursement will be longer for ADB countries.

The paper concludes by outlining a number of implications for effective strategies to mitigate long delays encountered throughout the project cycle in the agricultural sector.

Keywords: Project Delay, Project Performance, Agricultural Sector, African Development Bank, Africa

JEL codes: O19 ; O55 ; P45 ; F34

1. Background

There is a common agreement on the fact that improving aid effectiveness is critical to meeting the Millennium Development Goals (MDG) and ensuring a steady path to development. It is also recognized that the successful implementation of development operations is important to the process of improving aid effectiveness. Successful implementation of development projects and programs depends on several factors including the predictability and timing of Aid disbursement. The utility of aid to recipients is often seriously compromised by delays in disbursement and the associated unpredictability of its availability.

On the basis of data available on more than 500 operations funded by the African Development Bank, this paper explores the extent of disbursement delays at the Bank, and analyzes some of the critical factors that affect the probability of projects to experience start up delays. Over the years, many past studies and evaluations have identified a number of factors affecting the performance of Bank Group assisted projects. Some of these factors are generic in nature and persistent across projects, sectors and times. In particular, time delay in project gestation (lengthy delays in signing loan agreements, loan effectiveness and first disbursement), has always been identified as a recurrent bottleneck constraining the performance of most operations. For instance, successive review of evaluation results produced by the operations evaluation department (OPEV) has consistently identified delays at start-up and delays in implementation as important factors affecting success. The review of 1996-1998 evaluation results identified time delays as one of the weakest parts of implementation performance in the agriculture sector, with delays averaging 24 months (or 44% above original end of project estimates), with delays in loan effectiveness accounting for almost half the total delay. In the same direction, the 2000-2001 review of evaluation results showed delays as a particularly weak point of most projects in all sectors, including projects with successful results. The most recent review of evaluation results (the 2008 annual review of evaluation results) also pointed out that operations funded by the Bank repeatedly delayed at each stage of the project cycle. These delays ultimately decrease project effectiveness and impact.

These pervasive and significant delays are also featured in other evaluation products. For example, one of the main problems that are common to the 1997 and the 2007 country portfolio performance review for Uganda is slow fulfillment of loan conditions. In the same line, a country assistance evaluation for Ghana undertaken in 2006 identified the delays in fulfilling conditions

precedent to loan effectiveness as one of the major factors affecting the smooth implementation of some Bank Group assisted projects.

The influence and importance of time delays in project performance emphasizes the need for a systematic effort to understand why some projects delay so much while others do not. What are the characteristics of a project which affect its probability to experience start-up delays? Responding to these questions is crucial if one wants to set up effective strategies to mitigate long delays encountered throughout the project cycle. This study attempts to do that. Statistical and econometric tools are used to identify the determinants of delays in project start-up in the agricultural sector. The dataset used, consists of all the 525 agricultural sector operations approved by the Bank between 1990 and 2007.

The next section provides an overview of project cycles at the Bank. This is followed in section 3 by descriptive statistic and analysis of time delays for projects in our database. Section 4 presents and discusses the results of the econometric analysis and the final section discusses implications of the findings along with some concluding remarks.

2. Project Cycle at the Bank

The various stages from country programming to project[2] completion and post evaluation are known collectively as AfDB Group's project cycle. The first step in the Bank project cycle is *identification* which occurs during periodic consultations with regional member countries (RMCs). It involves determining, with the country, projects and programs, which are consistent with the Bank's strategy, for inclusion in the country's development plan. The second step, which is project *preparation,* involves a fact finding mission aimed at presenting in more detail, the various projects and studies and investigates whether technical, environmental, economic, financial, institutional and social objectives are achievable. During the third step, the *appraisal phase*, feasibility studies are finalized, as well as detailed engineering studies and environmental impact assessments.

The project will then go through an approval process, after negotiations between the Bank and the borrowing country are completed, the Bank submits the financing proposal to its Board of

[2] Bank operations are carried out through different instruments: project, study, line of credit etc. In the paper the world 'project' and 'operation' are sometime used interchangeably.

Directors for *approval*. After approval, the negotiated agreements are signed, a phase known as *commitment*. The Bank will later assess the effectiveness of the loan agreement. The Bank declares a loan/grant effective after the Borrower has fulfilled the *effectiveness* conditions specified in the Agreement and the General Conditions (entry into force). This will be followed by the *first disbursement*. The two last phases will then be the *implementation* and subsequently the *post-evaluation*.

In the project cycle, critical steps begin after project approval. In this study we are interested in delays occurring between different steps from approval to first disbursement. That is, we will focus on the elapsed times between approval and commitment, commitment and effectiveness, effectiveness and first disbursement. After loan approval a Borrower is allowed a maximum interval of about 90 days to sign the loan or grant agreement with the Bank Group. Commitment or service charges starts running on a loan 45 days after loan signature, irrespective of whether disbursement has been made or not. Before disbursement commences, the loan or grant must be entered into force, or declared effective. The project implementation starts from the moment the project is declared effective. The requirements and deadlines for loan effectiveness are stipulated in the loan agreement. Normally, loan documents will allow an additional 90 days for the loan agreement to become effective.

3. Data and Descriptive Results

The information pertaining to projects and programs at the Bank are stored in the SAP system. The raw dataset for this study was downloaded from this platform. All operations of the department of agriculture and agro-industry (OSAN) approved between 1990 and 2007 were collected, cleaned and verified, resulting in 525 operations implemented across 41 countries. This consists of 440 country operations and 85 multi-country types of operations. Operations approved by the bank are stored in the Bank system under different sub-categories. The 525 operations in the agricultural sector were found to be grouped in 5 sub-categories. Table 1 shows the distribution of operations by categories. More than 68% of the approved operations are project, while structural adjustment program and line of loan are marginal.

Table 1: Number Bank approved operations in the Agricultural Sector, 1990-2007

	1990-1995	1996-2000	2001-2007	TOTAL
Study	39	21	19	79
Project	103	95	163	361
Structural adjustment program	13	4	5	22
Emergency assistance			51	51
Line of loan	5	4	3	12
TOTAL	160	124	241	525

In this study, we are interested in time delays before a project's first disbursement. The following paragraphs describe some results of the statistical exploration and analysis.

Table 2 and Figure 1 show the level and trend of time delays at start up for projects in our sample. The variables of interest here are four categories of time delays: (1) elapsed time from approval to Commitment (2) elapsed time from Commitment to entry into force; (3) elapsed time from Effectiveness to first disbursement and (4) the total time elapsed between approval and first disbursement. The data reveal that the total time elapsed between approval and first disbursement is twenty (20) months on average. This is decomposed as followed; five (5) months for the time elapsed between approval and commitment, nine (9) months for the time elapsed between commitment and effectiveness, and six (6) months for the time elapsed between effectiveness and first disbursement.

The projects were grouped by periods of approval; 1990-95, 1996-00, 2001-2007 (1990-95 represents the pre-reform period; 1996-00 is the transition period after the Knox report and 2001-07 represents the new Bank strategies). A look at the variation of time delays over the three periods shows a noticeable statistically significant difference. The overall delay decreases from 27 months for projects approved in 1990-1995 to 14 months for projects with approval date between 2001 and 2007. There are also significant improvements in time elapsed for all the component steps. These results also show which segments of the project cycle contribute more to the delays at start-up of projects. As clearly shown, the delays between commitment and loan effectiveness are responsible for close to half of the total delay.

Table 2: Time delays (months) between subsequent steps, over three time periods.

	Total elapsed time from approval to first disbursement (Tottime)	Total elapsed time from approval to Commitment (Aptocom)	Total elapsed time from Commitment to entry into force – Effectiveness (comtoef)	Total elapsed time from Effectiveness to first disbursement (eftofirs)
Period : 1990-95	27.5	5.9	13	8.7
Period : 1995-00	18.9	4.7	9.3	4.8
Period : 2001-07	14.5	3.9	6.8	4.3
Overall average	20.1	4.7	9.5	5.9
Statistical signification of the difference between period (t-test)	***	**	***	***

*** Significant at 1% ; ** Significant at 5%

Figure 1: Change over time in delayed time from project approval to first disbursement

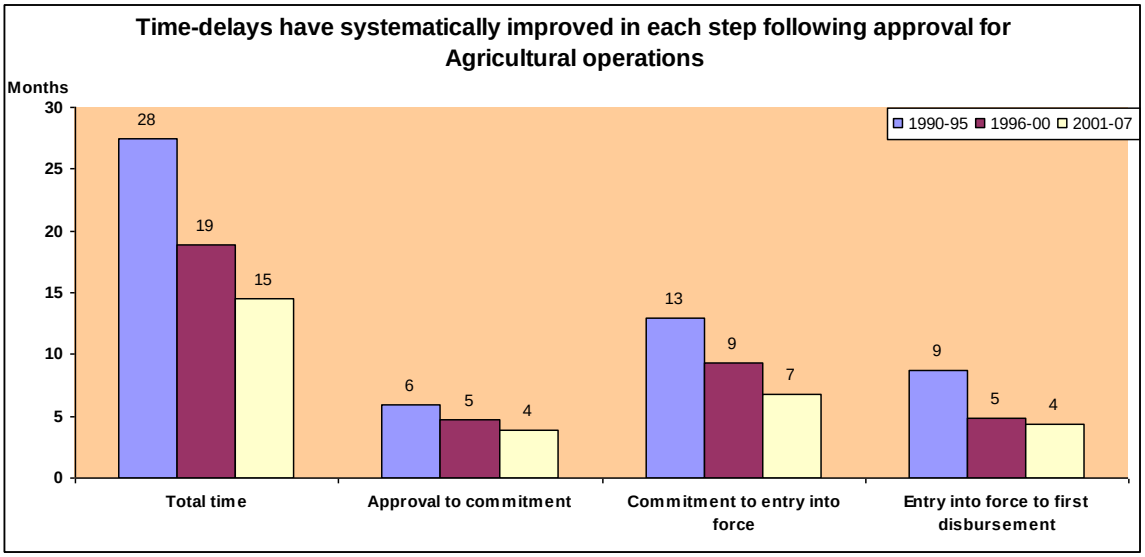

Table 3 shows the project start-up delay pattern by region. Projects in our database are classified into 6 groups; multinational projects were put in a cluster, and single country projects are grouped according to the geographical cluster of the country. Results reveal that time delays are consistently high throughout regions, and different geographical regions experience almost the same level of time delays between subsequent steps after project approval. However,

multinational projects were significantly more efficient in terms of delays at start-up. The average elapsed time between approval and first disbursement for multinational projects is twelve months (12), whereas the regional averages for national projects are consistently 20 months. Another important observation is that multinational projects tend to take slightly more time for signature (commitment); but once this is done, the subsequent steps are fulfilled much more faster.

Table 3: Time elapsed between subsequent steps across geographical regions in Africa?

	Total elapsed time from approval to first disbursement (Tottime)	Total elapsed time from approval to Commitment (Aptocom)	Total elapsed time from Commitment to entry into force – Effectiveness (comtoef)	Total elapsed time from Effectiveness to first disbursement (eftofirs)
Center	24.6	5.3	14	5.7
East	21.9	5.7	8.8	7
North	21.2	5.1	9.4	6.6
South	22.6	4.5	10.4	7.9
West	20.6	3.7	11.2	5.7
Multinational	12.1	5.6	3.7	3.6
Statistical signification of the difference between region (t-test)	***	n.s	***	**

n.s = Not Significant ; *** Significant at 1% ; ** Significant at 5%

We also investigated the relationship between time delays and selected characteristics of operation. Table 4 presents the time delays by different categories of operations. Studies have the longest delays of 22 months, while emergency assistance showed the shortest time of 8 months. The difference in time delays for project categories are however not statistically significant. Distinguishing ADB countries, ADF countries and countries eligible for both ADB and ADF, Table 5 shows the average time delays by category of country. It is apparent that overall, there is no noticeable difference between categories, although ADB countries seem to experience slightly longer delays than others.

Finally, we took a look at the association between time delays and project characteristics. We investigated this issue by simply computing the correlations between times elapsed and different projects attributes (Table 6). A few main patterns appear when closely examining this table. The

table shows a negative and significant correlation between time delays and operation approval date. The table also exhibited a negative correlation between Bank funding share and the time delays, implying that the greater the Bank funding share is, the lower the time delays.

In the above descriptive analysis, we have identified some strengths and direction of the relationship between time delays and some selected variables. In the next section, we will take the analysis one step further by fitting regressions to the data. By so doing, we will be able to measure the exact degree of association between time delays and each project characteristic while controlling for the other features.

Table 4: Time elapsed between subsequent steps by category of operation (months)

	Total elapsed time from approval to first disbursement (Tottime)	Total elapsed time from approval to Commitment (Aptocom)	Total elapsed time from Commitment to entry into force – Effectiveness (comtoef)	Total elapsed time from Effectiveness to first disbursement (eftofirs)
Study	22	4.1	9.4	8.8
Project	20.1	4.8	9.8	5.6
Structural adjustment program	15.2	3.8	8.1	3
Emergency assistance	8.2	5.2	0.5	1.9
Line of loan	18.6	5.5	8.1	4.7
Statistical significance of the difference (t-test)	n.s	n.s	n.s	***

n.s = Not Significant ; *** Significant at 1%

Table 5: Time elapsed between subsequent steps by category of country

	Total elapsed time from approval to first disbursement (Tottime)	Total elapsed time from approval to Commitment (Aptocom)	Total elapsed time from Commitment to entry into force – Effectiveness (comtoef)	Total elapsed time from Effectiveness to first disbursement (eftofirs)
Countries eligible for ADF only	19.6	4.6	9.4	5.7
Countries eligible to ADB only	24.4	5.1	10.6	7.8
Countries eligible to ADF and ADB	21.9	6.9	8.2	6.9
Statistical signification of the difference (t-test)	n.s	n.s	n.s	n.s

n.s = Not Significant

Table 6: Pearson Correlation of time-delay versus project characteristics

	Total elapsed time from approval to first disbursement (Tottime)	Total elapsed time from approval to Commitment (Aptocom)	Total elapsed time from Commitment to entry into force–Effectiveness (comtoef)	Total elapsed time from Effectiveness to first disbursement (eftofirs)
Operation approved amount (CapApp)	-.025	-.020	.013	-.051
Operation approval year (APPRDATE)	-.367 ***	-.110 **	-.236 ***	-.249 ***
Planed operation duration (OPDUR)	.075	.025	.134 **	-.016
Number of operation components (Ncompo)	.033	.006	.027	.028
Bank' funding share (ADB_perc)	-.141 ***	-.050	-.143 ***	-.058

***. Correlation is significant at the 0.01 level.

4. Econometric Analysis and Results

After identifying that projects do delay from time of approval to first disbursement, and establishing some association between time delay and project characteristics, in this section, we attempt to determine and explain the differences that induce the divergence among projects with regard to delays at start-up. Why do some projects experience long delays and others do not? This will lead us to look for main determinants of project delays and identify characteristics that influence the probability of a project to experience long delay at start-up. There are several ways to econometrically model the search for factors affecting time delay. But Tobit model is certainly the most appropriate in this case where some independent variables have a continuous effect on the dependent variable. Consequently, tobit regression was used.

The Tobit Regression Model

The Tobit model used is a censored normal regression type. The dependent variable is the time elapsed in months between subsequent periods, which are all censored at zero. To avoid the

censoring bias that Ordinary Least Squares could generate, a Tobit censored at zero is appropriate (Maddala, 1983; Nkamleu et al., 2006).

The Tobit model is an econometric model proposed by James Tobin (1958) to describe the relationship between a non-negative dependent variable y_i and an independent variable (or vector) x_i. While other estimation approaches, such as the Heckman's model, could also generate unbiased results, the Tobit approach conserved degrees of freedom and is relevant in cases such as this one, where the independent variables have a continuous effect on the dependent variable which is left censored. Four Tobit models were estimated; one for each of the following four dependent variables: time elapsed from approval to commitment; time elapsed from commitment to effectiveness; time elapsed from effectiveness to first disbursement; time elapsed from approval to first disbursement.

The empirical model of the effect of a set of explanatory variables on the start-up delays is specified using a latent variable (sometime called index function) as:

$$y_i = \begin{cases} y_i^* & if \quad y_i^* > 0 \\ 0 & if \quad y_i^* \le 0 \end{cases}$$

$$y_i^* = \beta X_i + \mu_i, \qquad \mu_i \to N(0, \sigma^2) \qquad \text{(Eq 1)}$$

Where y_i^* is an unobservable index variable (latent variable). 'β' is the vector of parameters to be estimated, 'X_i' is the matrix of the explanatory variables and μ_i is the error term. 'Y_i' represents a limited dependent variable, measuring the length of time delays (in months). The log-likelihood function for estimation of the parameters is given by:

$$LogL = \sum_0 \log(1 - \Phi_i) + \sum_1 \log\left(\frac{1}{(2\pi\sigma^2)^{1/2}}\right) - \sum_1 \frac{1}{2\sigma^2}(Y_i - \beta X_i)^2 \qquad \text{(Eq 2)}$$

Where the first summation (with index 0) is over the N_0 observations for which $Y_i = 0$ and the second and third summations (with index 1) is over the N_1 observations for which $Y_i > 0$.

The expected length of delay and the expected length for the projects above the limit (Y>0) are given respectively by:

$$E(Y_i) = \Phi\left(\frac{\beta X_i}{\sigma}\right)\beta X_i + \sigma\phi\left(\frac{\beta X_i}{\sigma}\right)$$

And

(Eq 3)

$$E(Y_i / Y_i > 0) = \beta X_i + \sigma \frac{\phi\left(\frac{\beta X_i}{\sigma}\right)}{\Phi\left(\frac{\beta X_i}{\sigma}\right)}$$

Where ϕ is the density function and Φ the cumulative distribution function of the standard normal distribution. The β coefficient should not be interpreted as the direct effect of x_i on y_i, as one would with a linear regression. Instead, the impact of the change in explanatory variables on the dependent variable, which is the time delay, would be captured through the following elasticity.

$$\left[\delta E(Y_j) \Big/ \delta Xj\right] X_j \Big/ E(Y_j) \qquad \text{(Eq 4)}$$

One tobit model was estimated for each of the four variables of interest. The four dependent variables are: (1) the number of months elapsed from approval to Commitment (2) number of months elapsed from Commitment to entry into force (effectiveness; (3) number of months elapsed from Effectiveness to first disbursement and (4) total number of months elapsed between approval and first disbursement.

Thirteen (13) potentially relevant explanatory factors (x_i) were included in the regressions. Table 7 presents descriptions of the variables.

Table 7: Description and Measurement of Variables

Variable	Description	Measurement
Dependent Variables		
TOTTIME	Time elapsed from approval to first disbursement	Total number of months
APTOCOM	Time elapsed from approval to first disbursement	Total number of months
COMTOEF	Time elapsed from approval to first disbursement	Total number of months
EFTOFIRS	Time elapsed from approval to first disbursement	Total number of months
Independent Variables		
CAPAPP	Operation approved amount (in UAC)	Monetary value measured in Units of accounts (UA).
DATEBRAC	The period the operation was approved	1 = 1990-95 ; 2 = 1995-00 ; 3 = 2000-07
OPDUR	The planned duration of the operation	Number of months
NCOMPO	The number of components of the operation	Number of components
ADB_PERC	The share of the operation cost funded by the Bank	The share of the operation cost funded by the Bank
CENTER	Whether or not the operation is localized in the Central Africa region	1=CENTER ; 0=Other
EAST	Whether or not the operation is localized in the Eastern Africa region	1=EAST ; 0=Other
NORTH	Whether or not the operation is localized in the Northern Africa region	1=NORTH ; 0=Other
SOUTH	Whether or not the operation is localized in the Southern Africa region	1=SOUTH ; 0=Other
WEST	Whether or not the operation is localized in the Western Africa region	1=WEST ; 0=Other
PROJECT	Whether or not the operation is a project	1=Project ; 0=Other
ADBONLY	Whether or not the country is an ADB only eligible country	Country eligibility to ADB/ADF : 1=ADB only ; 0=other
GOALAG	Whether or not the main goal of the project is directly linked to agriculture and productivity growth	1= Yes ; 0= No

Econometric Results

The model was estimated using the LMDEP econometric program, version 7.0. As featured in Tables 8, 9, 10 and 11, altogether, ten (10) explanatory variables were significant in explaining part or all of the time delays at start-up of operations in the agricultural sector.

Results generally indicated that: The operation's approved amount is significantly and negatively linked to the elapsed time between effectiveness and first disbursement and between approval and first disbursement. This suggests that contrary to what one might think, bigger operations are treated with more celerity, particularly after the project has entered into force. The date of operation approval has a negative influence of the time delays at all the sub-steps after approval. Recently approved operations are relatively faster in starting implementation. This confirms the observation made in the previous section and points to a temporal increase in efficiency associated to more celerity in starting the implementation of projects.

The planned duration of the operation is positively associated to the length of project gestation period. This is true for the overall gestation period as well as for the effectiveness and first disbursement sub-steps. This implies that projects with a planned long implementation period will also tend to exhibit a long gestation period. This is a very interesting feature which can help to quickly predict projects at risk of delays and therefore take preventive actions.

The number of components of an operation has a significantly negative relationship with the length of time delays during the gestation period. This means that projects with many components will start-up more speedily than projects with a small number of components. This result suggests that operations with many components might be more understandable and easier to process. Some operations are sometime criticized because they have many components. This result here suggests that compressing many components into fewer ones could also be counterproductive as the components might become bulky and render the project more difficult to be understood.

Five regional variables were included to account for whether the project belongs to a country pertaining to each of the five geographical area of the continent. Each of these regional variables is a dummy variable to control for regions (Center, East, North, South, and West). These

variables were codified: '1' if the country belongs to the region and '0' otherwise. The variable indexing multinational projects is used here as the base, therefore the coefficients on regional variables compare each region with multinational projects. All significant coefficients for regions are positive. This highlights the fact that globally, national projects experience more delays than multinational projects. This is particularly pronounced for length of time between commitment and effectiveness. As seen in the previous section (Table 3), after commitment, multinational projects will become effective in less than four months, whereas national projects in the Center for example, will need fourteen months.

Finally, Table 12 reports a significant and positive coefficient for ADBONLY. This denoted that, projects in ADB countries are significantly slower for first disbursement after effectiveness. This tells us that contrary to what one might think, delay in project gestation is not only a matter of poorer countries. The situation in middle income countries (ADB Countries) is similar and sometimes even worse.

Table 8: Descriptive statistics of the variables used in the models

VARIABLE	**Mean**	**Std dev**	**Minimum**	**Maximum**
TOTTIME	20.08	15.86	0	165.157
APTOCOM	4.73	7.44	0	145.144
COMTOEF	9.47	11.66	0	114.469
EFTOFIRS	5.94	8.00	0	49.7375
CAPAPP	7917390	14392500	72464.1	1.54E+08
DATEBRAC	2.15	0.86	1	3
OPDUR	47.26	23.42	4	120
NCOMPO	2.67	2.24	0	10
ADB_PERC	0.80	0.21	0	1
CENTER	0.07	0.26	0	1
EAST	0.20	0.40	0	1
NORTH	0.07	0.26	0	1
SOUTH	0.16	0.37	0	1
WEST	0.34	0.47	0	1
PROJECT	0.69	0.46	0	1
ADBONLY	0.10	0.30	0	1
GOALAG	0.70	0.46	0	1

Table 9: Tobit model results of factors affecting the length of time between approval and first disbursement.

Variable	Coefficient	Standard Error.	t-Statistics
CONSTANT	32.78	5.29	6.20 ***
CAPAPP	-1.20E-07	5.03E-08	-2.38 **
DATEBRAC	-8.45	1.06	-7.93 ***
OPDUR	0.20	0.05	4.00 ***
NCOMPO	-1.02	0.48	-2.11 **
ADB_PERC	-5.25	3.85	-1.36
CENTER	4.54	3.41	1.33
EAST	5.58	2.88	1.94 **
NORTH	-0.32	4.70	-0.07
SOUTH	4.90	3.02	1.62 *
WEST	6.17	2.48	2.49 ***
PROJECT	-0.70	2.45	-0.28
ADBONLY	3.86	3.80	1.02
GOALAG	0.30	1.89	0.16
Sigma = 12.39 ***			
Log likelihood = -1135.42			
Total sample = 290			

* significant at 0.10; ** significant at 0.05; *** significant at 0.01

Table 10: Tobit model results of factors affecting the length of time between approval and commitment.

Variable	Coefficient	Standard Error.	t-Statistics
CONSTANT	12.36	3.51	3.52 ***
CAPAPP	-2.61E-08	3.34E-08	-0.78
DATEBRAC	-2.58	0.69	-3.75 ***
OPDUR	0.04	0.03	1.07
NCOMPO	-0.64	0.32	-2.00 **
ADB_PERC	-2.09	2.58	-0.81
CENTER	-1.06	2.16	-0.49
EAST	1.37	1.81	0.76
NORTH	-2.77	3.00	-0.92
SOUTH	-1.16	1.89	-0.62
WEST	-1.97	1.58	-1.25
PROJECT	1.18	1.64	0.72
ADBONLY	1.62	2.28	0.71
GOALAG	0.51	1.21	0.42
Sigma = 8.47 ***			
Log likelihood = -1118.66			
Total sample = 320			

* significant at 0.10; ** significant at 0.05; *** significant at 0.01

Table 11: Tobit model results of factors affecting the length of time between commitment and effectiveness.

Variable	Coefficient	Standard Error.	t-Statistics
CONSTANT	5.05	3.29	1.53
CAPAPP	-2.61E-08	3.08E-08	-0.85
DATEBRAC	-3.11	0.65	-4.81 ***
OPDUR	0.08	0.03	2.57 ***
NCOMPO	0.13	0.30	0.43
ADB_PERC	-1.46	2.39	-0.61
CENTER	7.61	2.10	3.62 ***
EAST	6.39	1.79	3.57 ***
NORTH	4.79	2.84	1.69 *
SOUTH	5.34	1.88	2.84 ***
WEST	9.31	1.56	5.96 ***
PROJECT	0.02	1.53	0.01
ADBONLY	-0.40	2.18	-0.18
GOALAG	0.63	1.16	0.54
Sigma = 7.58 ***			
Log likelihood = -929.20			
Total sample = 299			

* significant at 0.10; ** significant at 0.05; *** significant at 0.01

Table 12: Tobit model results of factors affecting the length of time between effectiveness and first disbursement.

Variable	Coefficient	Standard Error.	t-Statistics
CONSTANT	15.43	3.82	4.04 ***
CAPAPP	-7.03E-08	3.84E-08	-1.83 *
DATEBRAC	-4.38	0.80	-5.49 ***
OPDUR	0.13	0.04	3.43 ***
NCOMPO	-0.61	0.36	-1.70 *
ADB_PERC	-2.84	2.75	-1.04
CENTER	-1.98	2.49	-0.79
EAST	-2.01	2.09	-0.96
NORTH	-4.81	3.40	-1.42
SOUTH	0.99	2.20	0.45
WEST	-0.73	1.80	-0.40
PROJECT	-2.25	1.82	-1.24
ADBONLY	5.56	2.70	2.06 **
GOALAG	-0.01	1.40	-0.01
Sigma	8.66	0.43	20.26 ***
Sigma = 8.66 ***			
Log likelihood = -841.66			
Total sample = 290			

* significant at 0.10; ** significant at 0.05; *** significant at 0.01

5. Discussions and Conclusion

An abundant number of evaluation and non-evaluation studies at the Bank have pointed to long gestation and delays at project start-up as one of the main impediments to the performance of the Bank funded projects and programs. This paper focuses on the particular case of operations in the agricultural sector. Based on the universe of projects approved by the Bank between 1990 and 2007, the paper investigates the extent of start-up delay observed in this sector and isolates factors that affect time elapsed between subsequent steps after project approval. The objective being to identify project characteristics that affect probability of experiencing disbursement delays. Such identification could help set up efficient mitigation strategies. Results from the analysis indicated that:

1 –globally the total time elapsed between approval and first disbursement is twenty (20) months on average. This is a considerable length of time given that normally after loan approval, project documents will allow a maximum of 180 (6 months) days for the loan agreement to become effective. The avoidable service charges associated with such delay are a supplementary burden to the performance of Bank operations.

2 – Close to half of the total time delay is attributed to delay between commitment and loan effectiveness. This indicates that borrowers bear a major part of the responsibility in the project delay at star-up. A loan will be declared effective after a certain number of conditions are fulfilled (mainly by the borrower).

3 – There have been substantial improvements in time delay since the 1990s, which could be an indication of lightening in start-up procedures or more professionalism in project preparation.

4 - Multinational projects are significantly more efficient in term of delays at start-up. This finding is important and could be used to improve other types of operations. What are the particular features of multinational projects which make them less prone to delays? Could these features be brought into non-multinational projects? Such good questions might warrant further investigations as a way of feeding good practice into programming.

5 – The smaller the operation, the greater the probability of experiencing long start-up delays. Small projects tend to receive less attention. An insufficient involvement of the Bank and/or the borrower in project preparation will usually be the cause for future modifications and delays. Giving limited attention to small projects is therefore a mistake as it leads to long delays and minimizes the probability of realizing project benefits.

6 – The longer the implementation period of a project, the higher the gestation period will be. Operations expected to last long are usually more complex as it can span over several

generations of staff. Those (generation) who initiate the project are not necessarily those who will implement it, and in the same way, one can observe several generations of implementers. These types of projects are usually attached with cumbersome legal requirements and complex in-country loan ratification procedures which will impact the start-up delays.

7 – Projects with many components have lower probability of experiencing delays at start up. In the project design phase, some studies have noted the tendency of having 'all-in-one' components. Our results suggest that this situation will not only affect the implementation of the project but also the start-up. Having clear and specific components should be encouraged.

8 – After a project has entered into force, the time elapsed to first disbursement will be longer for ADB countries. This shows that the problem of disbursement delays is not only encountered in poor countries. It might be that ADB countries are demanding innovative projects that are more complex and take more time to get started.

A key implication of these findings is that time delay at project start-up is a weak part of the project cycle and it is crucial for the Bank to take steps to address this phenomenon. Addressing the problems that lead to such delays at the sector level can help reduce the overall delays and improve the economic rate of return for projects in the agricultural sector. In that perspective, the present study shows markers that can help identify projects at risk. From a policy and strategy standpoint, and particularly for the projects at risk, there are a few issues that the Bank needs to attend to. Some of these issues have repeatedly been recommended in past studies sponsored by the Bank.

A – More effective direct and early involvement of the Bank in upstream work, including Economic and Sector Work is necessary in order to improve project design and minimize later modifications and delays.

B – Approval of projects at a later stage of the procurement process could help reduce delays and changes in project scope and composition, and result in more realistic estimates of costs. In that context, conditions that are intrinsic to project implementation such as establishing Monitoring and Evaluation or Project Management Units should occur before board approval and the conditions of effectiveness will be limited to the minimum legal requirements.

C - Delays at start-up can be minimized if the Bank undertakes adequate capacity assessment at project inception and ensures appropriate and timely training on procedures to relevant country officials. Trainings on procedures may also be needed for ADB staff as well as the design of administrative systems that improve the timeliness and quality of ADB reactions to procurement issues raised by borrowers.

D - Disbursement forecasts have to become more realistic and related to historic experience. Disbursement profiles for various countries and sectors could be prepared and used as a first approximation of a realistic disbursement forecast.

The recommendations are clear and can easily be implemented. However, in so doing, particular attention should be given to the projects with higher probability of delay as identified in this study.

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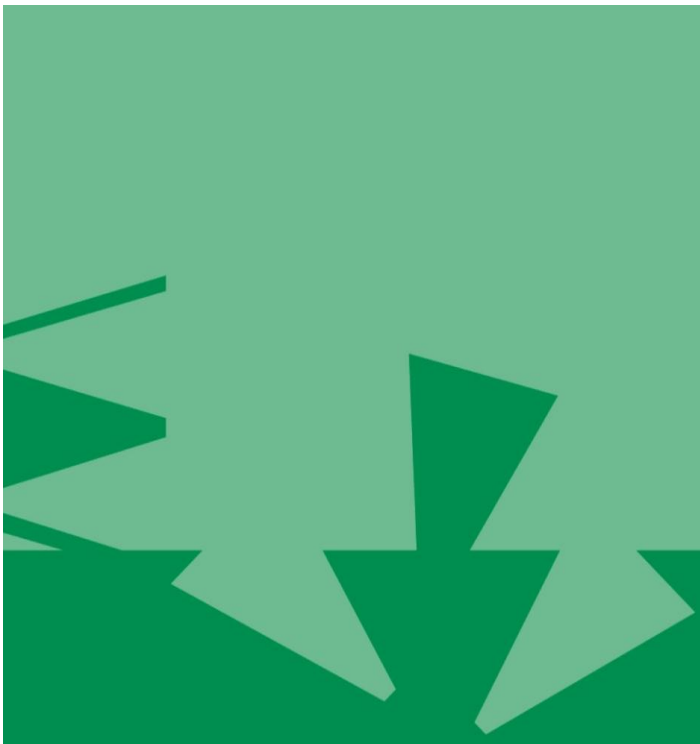

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